

REMARKS

I. Introduction

Claims 1-3, 5-12, and 14-21 are pending in the present application. In a May 30, 2007, Office Action (hereinafter "Office Action"), Claims 19-21 were rejected under 35 U.S.C. § 103(a) as being anticipated by a publication entitled "Internet Explorer Security Options, Part 2" to Smith (hereinafter "Smith"). Claims 1-3, 5-12, and 14-18 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,629,267, issued to Glerum et al. (hereinafter "Glerum"), in view of a publication entitled "Document Viewer Installation and Getting Started" (hereinafter "WORD") and in further view of Smith.

For the following reasons, applicants respectfully submit that the rejected claims of the present application are non-obvious over the cited references because the cited references, alone or in combination, fail to teach or suggest allowing a user to disable specific plug-in modules that generated a failure. Prior to discussing more detailed reasons for applicants' belief that all the claims of the present invention are allowable, a brief description of the present invention and the cited references is presented. The following discussions of the disclosed embodiments of applicants' invention and the teachings of the references are not provided to define the scope or interpretation of any of applicants' claims. Instead, such discussions are provided to help the U.S. Patent and Trademark Office better appreciate important claim distinctions discussed thereafter.

A. Summary of the Present Invention

The present invention is generally directed to improving the stability of a Web browser by identifying plug-in modules that cause failures and permitting users to disable or update problematic plug-in modules. In one aspect, a method is provided for identifying a plug-in module that generated a failure. In response to receiving notice of a failure, the method obtains

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selected contents of memory from a computer created at the time of the failure. A failure signature is generated from the contents of memory that is characteristic of the plug-in module that generated the failure. Then, the newly created failure signature is compared with one or more failure signatures generated to identify the source of the failure.

B. Summary of Glerum

Glerum is generally directed to a system for reporting program failures to a central location or repository. The failure may be a crash of a program module or a set-up failure that occurs during installation of the program module. After the failure is reported, additional data may be requested regarding the state of the user's computer. This additional data may be used to develop a software update to improve the performance of the program module. In one embodiment, when a failure is reported, the user is presented with a dialog box asking whether the user wants to report the problem. If the user chooses to report the problem, then a failure reporting executable program sends identifying information that describes the failure to the central repository.

C. Summary of KB276550

The KB276550 reference is directed to a Web browser error reporting tool that reports unrecoverable errors to a trusted entity over the internet for analysis by developers. In this regard, KB276550 teaches a system in which users may view details about problems encountered while the Web browser executes and submits error information to a trusted entity. The information reported to the trusted entity allows developers to identify the source of the error. Based on the information that is received from a plurality of users, developers may create patches that are distributed in service packs at a later point in time. However, the KB276550 reference does not perform processing in real time that identifies a specific plug-in module that is the source of the error.

D. Summary of the WORD Reference

The WORD reference is directed to a plug-in module that allows a user to view documents that are not in a format which may be natively viewed from a Web browser. More specifically, the WORD reference allows users to open and view Microsoft Word® documents while the user is employing a Web browser to locate and download information from a remote location. Instead of a user being required to open a separate program (e.g., Microsoft Word®) when a word processing document is downloaded, the user may view the document inside a Web browser program such as Microsoft Internet Explorer®. In this regard, the WORD reference discloses a system for installing a plug-in to a Web browser that allows users to view word processing documents identified while the user is browsing a computer network.

E. Summary of Smith

The Smith reference is purportedly directed to configuring security settings for security zones in Microsoft Internet Explorer. In this regard, Smith discloses a way for users to define security policies while browsing a computer network. For example, from a graphical user interface, users may implement a security policy in which broad categories of plug-in modules are either automatically disabled or enabled. Also, in the Smith system, a user may define a security policy in which a prompt is displayed to obtain user feedback before a plug-in module to a Web browser program is allowed to execute.

Rejection Under 35 U.S.C. § 112 second paragraph

Claims 3, 4, 12, and 13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention. Claims 3 and 12 were amended to overcome this rejection. Moreover, Claims 4 and 13 have been canceled, making this rejection moot with regard to these claims.

Rejection Under 35 U.S.C. § 112 first paragraph

Claim 21 was rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Accordingly, applicants have amended Claim 21 in order to overcome this objection.

Rejection of Claims 1 and 10 under 35 U.S.C. § 103(a)

The Office Action rejected Claims 1 and 10 under 35 U.S.C. § 103(a) as being obvious in view of the Glerum, Smith, and WORD references. Since the elements for each of these claims are similar, they will be discussed together. In this regard, as amended Claim 1 recites:

In a computing device having at least one plug-in module that extends the functionality of a Web browser, a method of identifying a plug-in module that generated a failure, comprising:

in response to receiving notice of a failure, obtaining selected contents of memory of said computing device created at the time of the failure;

generating a failure signature that is characteristic of the plug-in module that generated the failure;

comparing said failure signature with one or more failure signatures generated by known plug-in modules; and

allowing a user to disable the plug-in module that is the source of the failure instead of a category of plug-in modules.

Similarly, Claim 10, as amended, recites the following:

A computer-readable medium bearing computer-executable instructions that, when executed, carry out a method of identifying a plug-in module that generated a failure, comprising:

in response to receiving notice of a failure, obtaining selected contents of memory of said computing device created at the time of the failure;

generating a failure signature that is characteristic of the plug-in module that generated the failure;

comparing said failure signature with one or more failure signatures generated by known plug-in modules; and

allowing a user to disable the plug-in module that is the source of the failure instead of a category of plug-in modules.

The Office Action asserts that the combination of the GLERUM, Smith, and WORD references teaches each element in Claims 1 and 10. Applicants respectfully disagree. However, in order to clarify the subject matter that the applicants regard as the invention, certain claim amendments have been made that more clearly distinguish independent Claims 1 and 10 from the cited references.

Applicants respectfully submit that neither the GLERUM, Smith, and/or WORD references teaches "allowing the user to disable the plug-in module that is the source of the failure instead of a category plug-in modules," as recited in Claims 1 and 10. In this regard, Claims 1 and 10 are directed to performing processing to identify a plug-in module to a Web browser that caused a failure. Each of these claims recites processes and steps for generating a failure signature and comparing the failure signature to signatures associated with plug-in modules that are known to cause failures. By performing these steps, aspects of the present invention allow a user to identify a specific plug-in module that is the source of a failure. Then the user may decide to disable the plug-in module that was identified as the source of the failure. Significantly, the user is not required to disable an entire category of plug-in modules when disabling the plug-in module that generated the failure.

The Office Action asserts that Smith teaches disabling one or more plug-in modules used in conjunction with a Web browser. Office Action at page 2. In this regard, the Office Action asserts that the claim language in the present application only recites disabling plug-in modules in general. This claim language has been amended to more clearly indicate that the present invention is capable of disabling specific plug-in modules that are identified as a source of the

failure. Simply stated, the Smith reference does not teach disabling specific plug-in modules that generated a failure. Instead, the Smith reference allows users to define security policies while browsing a network that may cause broad categories of plug-in modules to be disabled. Even though the Smith reference allows users to prevent entire categories of plug-ins to be disabled, it does not teach identifying a specific plug-in module that generated a failure and allow the user to disable the problematic plug-in module. For example, the teachings of Smith may allow a user to disable ActiveX controls. However, if an error condition occurred, the user would not be able to identify the specific plug-in module that caused the error. Moreover, the user would not be able to disable a specific plug-in module. Instead, with the Smith system the user would only be able to disable a category of plug-in modules (ActiveX controls). Thus, the claimed subject matter recited in Claims 1 and 10 provides the user with a greater degree of granularity in disabling specific plug-in modules than exists in the prior art.

Generally described, under 35 U.S.C. § 103(a), a *prima facie* case of obviousness can be established only if the cited references, alone or in combination, teach each and every element recited in the claim. (*In re Bell*, 991 F.2d 781 (Fed. Cir. 1993)). However, none of the Glerum, Smith, or WORD references, alone or in combination, can be properly asserted as disclosing a method that includes allowing a user to disable a specific plug-in module that is a source of a failure. Thus, for the above reasons, applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejections of Claims 1 and 10.

Rejection of Claims 2-3, 5-8, 10-12, and 14-18

Claims 2-3, 5-8, 10-12, and 14-18 depend on independent Claims 1 and 10, respectively. As discussed above, none of the cited reference teach or suggest identifying a specific plug-in module that caused a failure and allowing the user to disable this specific plug-in module.

Accordingly, for the above-mentioned reasons, Claims 2-3, 5-8, 10-12, and 14-18 are also allowable over the cited and applied references.

Rejection of Claim 19 under 35 U.S.C. § 103(a)

Claim 19 was rejected under 35 U.S.C. § 103(a) as being obvious in view of the Smith and a document entitled "Macromedia Flash Player 5.0 Causes an Error Message in Windows XP" (hereinafter "Q320219"). As amended, Claim 19 recites:

A computer-readable medium bearing computer-executable instructions which, when executed:

identifies plug-in modules used in conjunction with a Web browser;

identifies a plug-in module that generated a failure based on a failure signature;

displays a graphical user interface that lists the plug-in modules used in conjunction with a Web browser; and

supports disabling the specific plug-in module used in conjunction with the Web browser that generated the failure instead of a category of plug-in modules.

The Office Action asserts that the combination of Smith and Q320219 references teaches each element in Claim 19. Applicants respectfully disagree. However, in order to clarify the subject matter that the applicants regard as the invention, certain claim amendments have been made that more clearly distinguish independent Claim 19 from the cited references. Applicants respectfully submit that neither the Smith nor Q320219 references teaches "identifying a plug-in module that generated a failure based on a failure signature," and "disabling the specific plug-in module used in conjunction with the Web browser that generated a failure instead of a category of plug-in modules," as recited in Claim 19. In this regard, the claimed subject matter allows a user to identify a specific plug-in module that is the source of a failure. Then the user may decide to disable the plug-in module that was identified as the source of the failure.

Significantly, the user is not required to disable an entire category of plug-in modules when disabling the plug-in module that generated the failure. As discussed above, the Smith reference does not teach disabling specific plug-in modules that generated a failure. Instead, the Smith reference allows users to define security policies while browsing a network that may cause broad categories of plug-in modules to be disabled. Even though the Smith reference allows users to prevent entire categories of plug-ins to be disabled, it does not teach identifying a specific plug-in module that generated a failure and disabling this module. Moreover, the Q320219 reference is merely directed to allowing a user to update a plug-in module (Macromedia Flash Player 5.0) that is known to cause failures when executed in conjunction with a Web browser. In no way does this reference teach identifying a plug-in module that generated a failure based on a failure signature and disabling this plug-in module. Therefore, applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of Claim 19.

Rejection of Claims 20-21

Claims 20-21 are dependent on Claim 19. However, as discussed above, none of the cited references teach or suggest identifying a specific plug-in module that caused a failure and allowing the user to disable the specific plug-in module that generated the failure. Accordingly, for the above-mentioned reasons, Claims 20-21 are also allowable over the cited and applied references.

CONCLUSION

Based on the above-referenced arguments, applicants respectfully submit that all pending claims of the present application are patentable over the cited references. Because the cited references fail to teach or suggest each element of the pending claims, applicants respectfully request withdrawal of the rejections and allowance of the present application. If any questions

remain, applicants request that the Examiner contact the undersigned at the telephone number listed below.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Clint Feekes", with a stylized flourish at the end.

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